CLAIMS

1.   A method for transmitting data across a medium comprising:

determining an expected acknowledgment time, a send delay interval time, and a send

timeout time;

sending a series of ordered packets from a source to a destination;

receiving said ordered packets at said destination;

sending an acknowledgment indicating a receipt of said ordered packets to said source;

adjusting said expected acknowledgment time, said send delay interval time, and said send

timeout value, if necessary; and

re-sending one or more of said ordered packets using said send timeout time.

2.   The method of claim 1 wherein said source is a client or a server.

3.   The method of claim 1 wherein said destination is a client or a server.

4.   The method of claim 1 wherein said step of adjusting comprises:

increasing said send delay interval time if a number of packets in transit increases or a receive

delay time increases.

5.   The method of claim 1 wherein said step of adjusting comprises:

decreasing said send delay interval time if a number of packets in transit decreases beyond a

target or a receive delay time decreases.

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6. The method of claim 1 wherein said step of adjusting comprises:

sending said packet send timeout time to an expired time, if one of said packets is not acknowledged in order.

7. The method of claim 1 wherein said step of adjusting comprises:

increasing said packet send timeout time for one or more subsequent packets, if all of said packets are acknowledged in order

8. The method of claim 1 further comprising:

determining an optimal size for said packets.

9. The method of claim 1 wherein said step of adjusting further comprises:

smoothing a variance in said expected acknowledgment time, said send delay interval time, and / or said send timeout value by dampening said variance towards a prior value.

10. The method of claim 1 wherein said step of sending further comprises:

determining if a firewall resides between said source and said destination;

restricting said packets to a range of ports;

opening said range of ports on said firewall; and

sending said packets through said range of ports.

11.   A computer program product comprising:

a computer usable medium having computer readable program code embodied therein configured to transmit data across a medium, said computer program product comprising:

computer readable code configured to cause a computer to determine an expected acknowledgment time, a send delay interval time, and a send timeout time;

computer readable code configured to cause a computer to send a series of ordered packets from a source to a destination;

computer readable code configured to cause a computer to receive said ordered packets at said destination;

computer readable code configured to cause a computer to send an acknowledgment indicating a receipt of said ordered packets to said source;

computer readable code configured to cause a computer to adjust said expected acknowledgment time, said send delay interval time, and said send timeout value, if necessary; and

computer readable code configured to cause a computer to re-send one or more of said ordered packets using said send timeout time.

12.   The computer program product of claim 11 wherein said source is a client or a server.

13.   The computer program product of claim 1 wherein said destination is a client or a server.

14.   The computer program product of claim 11 wherein said computer readable code configured to cause a computer to adjust comprises:

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computer readable code configured to cause a computer to increase said send delay interval time if a number of packets in transit increases or a receive delay time increases.

15.   The computer program product of claim 11 wherein said computer readable code configured to cause a computer to adjust comprises:

computer readable code configured to cause a computer to decrease said send delay interval time if a number of packets in transit decreases beyond a target or a receive delay time decreases.

16.   The computer program product of claim 11 wherein said computer readable code configured to cause a computer to adjust comprises:

computer readable code configured to cause a computer to send said packet send timeout time to an expired time, if one of said packets is not acknowledged in order.

17.   The computer program product of claim 11 wherein said computer readable code configured to cause a computer to adjust comprises:

computer readable code configured to cause a computer to increase said packet send timeout time for one or more subsequent packets, if a send timeout for one packet occurs and all of said packets are acknowledged in order.

18.   The computer program product of claim 11 further comprising:

computer readable code configured to cause a computer to determine an optimal size for said packets.

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19.   The computer program product of claim 11 wherein said computer readable code configured to cause a computer to adjust further comprises:

computer readable code configured to cause a computer to smooth a variance in said expected acknowledgment time, said send delay interval time, and / or said send timeout value by dampening said variance towards a prior value.

20.   The computer program product of claim 11 wherein said computer readable code configured to cause a computer to send further comprises:

computer readable code configured to cause a computer to determine if a firewall resides between said source and said destination;

computer readable code configured to cause a computer to restrict said packets to a range of ports;

computer readable code configured to cause a computer to open said range of ports on said firewall; and

computer readable code configured to cause a computer to send said packets through said range of ports.

21.   An adaptive protocol comprising:

an expected acknowledgment time, a send delay interval time, and a send timeout time, configured to be determined;

a series of ordered packets configured to be sent from a source and received at a destination;

an acknowledgment configured to be sent indicating a receipt of said ordered packets to said source;

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an adjuster configured to adjust said expected acknowledgment time, said send delay interval time, and said send timeout value, if necessary; and

a re-sender configured to re-send one or more of said ordered packets using said send timeout time.

22. The adaptive protocol of claim 21 wherein said source is a client or a server.

23. The adaptive protocol of claim 21 wherein said destination is a client or a server.

24. The adaptive protocol of claim 21 wherein said adjuster increases said send delay interval time if a number of packets in transit increases or a receive delay time increases.

25. The adaptive protocol of claim 21 wherein said adjuster decreases said send delay interval time if a number of packets in transit decreases beyond a target or a receive delay time decreases.

26. The adaptive protocol of claim 21 wherein said adjuster sends said packet send timeout time to an expired time, if one of said packets is not acknowledged in order.

27. The adaptive protocol of claim 21 wherein said adjuster increases said packet send timeout time for one or more subsequent packets, if all of said packets are acknowledged in order

28. The adaptive protocol of claim 21 further comprising:

a determiner for determining an optimal size for said packets.

29.   The adaptive protocol of claim 21 wherein said adjuster smoothes a variance in said expected acknowledgment time, said send delay interval time, and / or said send timeout value by dampening said variance towards a prior value.

30.   The adaptive protocol of claim 21 further comprising:

a firewall manager configured to determine if a firewall resides between said source and said destination;

restricting said packets to a range of ports;

opening said range of ports on said firewall; and

sending said packets through said range of ports.

LA 44722v7